

Didactic-motor strategy to improve segmental dynamic coordination in eighth-year students of the “Remigio Crespo Toral” Educational Unit

Estrategia didáctica-motriz para mejorar la coordinación dinámica segmentaria en los estudiantes de octavo año de la Unidad Educativa Remigio Crespo Toral

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ABSTRACT

This research responds to the need to introduce modifications to the Therapeutic Physical Culture process, when working with children with Prader Willi Syndrome. Theoretical-methodological shortcomings were found that limit the stimulation of physical potentialities in them. The objective is to propose a system of actions to stimulate these potentialities, containing stages, orientations and general and specific methodological indications, with procedures that make this process feasible. The essential relationships between the affective-motivational components and the stimulation of physical potentialities are revealed.

Keywords: System of actions; Therapeutic physical culture; Prader Willi syndrome; Physical potentialities

RESUMEN

La presente investigación tiene como objetivo la elaboración de una estrategia didáctica-motriz con enfoque lúdico para mejorar la coordinación dinámica segmentaria en los estudiantes de octavo año de la Unidad Educativa Remigio Crespo Toral. Durante el desarrollo de la misma se utilizaron métodos y técnicas investigativas tales como la encuesta, la entrevista, el estudio documental, la observación entre otros que permitieron obtener la información necesaria sobre el

estado del desarrollo de la coordinación dinámica segmentaria en los estudiantes de octavo grado de la Unidad Educativa Remigio Crespo Toral la cual sirvió como base para la elaboración de la estrategia.

Palabras clave: Estrategia didáctica-motriz; Coordinación dinámica segmentaria; Actividades lúdicas; Educación física

INTRODUCTION

For any action that is considered effective, it implies a series of requirements in terms of motor coordination, without it, it is not possible to perform any motor action efficiently. One of the most important dimensions of movement is coordination, as it is a physical quality that allows movements to be carried out in an orderly, segmented and coupled manner, to obtain any technical gesture.

Coordination can be of two types, general and segmental dynamics, the latter is defined by (Copado, 2019) as "the movement made by a certain segment of the body, legs or arms, together with sight and an object that helps to identify a presumed deficit or increase in the performance of each child. Segmental coordination, also known as visual-motor coordination or eye-segmental coordination (Ruiz, et al., 2017, p.6), implies having agility and concentration when executing, among others, the following specific movements: reception, hitting, passing and grab. As well as, consider the type of material, the trajectory, distance and speed of the particular object, in which vision is decisive.

One of the most used contemporary activities as a form of children's recreation is based on the use of information and communication technologies. Despite the recommendations issued by various agencies, organizations, psychologists and scientists, in general, to regulate and control its use at an early age, the increase in its use or abuse is a reality, as an almost unique form of entertainment in boys and girls. These actions have limited the interest in participating in active games and, consequently, the opportunities to develop oculo-segmental coordination.

Within the school educational context, Physical Education fulfills an important mission in the development of children's motor skills, for which it is relevant to be the bearer of physical qualities, such as eye-segment coordination, in this sense, the Ministry of Education of the Republic of Ecuador, considered in 2016, to

increase the academic workload from 2 to 5 hours per week, recognizing the role of Physical Education in the comprehensive development of the student. One of the fundamental objectives at the curricular level is the development of motor coordination, due to its involvement in playful, sports, gymnastic and expressive-body practices.

In this sense, in the "Remigio Crespo Toral" Educational Unit of the Asunción parish of the Girón - Azuay canton, it was possible to appreciate, through systematic observation of Physical Education classes in the eighth year, limitations in motor activities that imply coordination. segmental dynamics. One of the possible causes may be associated with the little motor activity carried out by schoolchildren in their free and leisure time.

Taking as a reference the classification of physical capacities provided by Ruiz (2012, p.121), as well as the objective set, this research focuses on coordination capacities, which according to Piaget cited by (Ribera, 2015, p.21) "is the possibility of bringing together several partial movements in a global act".

Similarly, Blume cited by (Ribera, 2015, p.26) explains that the coordinative capacity "is the motor performance budget of a subject, determined mainly by the movement control processes, making it more or less capable of successfully executing certain motor and sports activities.

For the development of the coordinative capacity and the formation of the personality, the so-called minor games, pre-sports and sports games are the most used in the Physical Education system based on their significant instructive-educational potentialities.

In eighth-year students, pre-sport games have a greater presence, which, according to Ruiz (2012, p.41), are configured as a variant of minor games whose fundamental characteristic is that their content favors the acquisition of certain movements, actions and skills. primary, which serve as a foundation for the acquisition of motor and sports skills, as well as sports games that the same author cited above states that they are the highest level of dynamic games that are characterized by their high demand for competitive performance, in which the team

or the individual player are subordinated to official rules established nationally or internationally.

For the development of physical capacities, the principles provided by Ruiz (2012) related to the gradual and progressive increase of the load, its undulating and cyclical variations, as well as the continuity of the exercise process and that of differentiation, are taken into account.

Based on the insufficiencies detected, as well as the aforementioned criteria, the development of a didactic-motor strategy with a playful approach was set as an objective for the investigation to improve segmental dynamic coordination in eighth-year students of the “Remigio Crespo Toral” Educational Unit.

METHODS

The selection and adaptation of the methods, techniques and instruments was carried out in correspondence with the particularities of each variable, which allowed obtaining information on the state of the development of segmental dynamic coordination in eighth-grade students of the “Remigio Crespo Toral” Educational Unit.

For this, a documentary analysis was carried out that allowed evaluating the planning of the development of the segmental dynamic coordination capacity in the eighth year students of the “Remigio Crespo Toral” Educational Unit, which it was guided by the following actions: the documents to be evaluated were specified based on the objective of the diagnosis, which were integrated by the planning of the subject, the methodological analysis of the coordination capacities, particularizing in the segmental dynamic coordination and the planning of the classes. of physical education.

A total of ten Physical Education classes were observed in order to verify the development of segmental dynamic coordination in eighth-year students of the “Remigio Crespo Toral” Educational Unit. Means used exercises, games, sports, methodology, as well as their influence on the child's motor development. The non-participant, structured, open and field type is used, when applying it its characteristics of generality, systematicity and objectivity are taken into account.

A survey was applied to the eighth-year students of the “Remigio Crespo Toral” Educational Unit to determine the preparationtheoretical-methodologicalthat teachers possess for the development of the dynamic segmental coordination capacity, this made it possible to reach conclusions related to the current state of the planning process of the dynamic segmental coordination capacity, facilitating the identification and assessment of the insufficiencies that the process possesses. To determine the current situation in which the development of segmental dynamic coordination capacity is found, a measurement was made through the following tests:

- SportComp coordination test. (Ruiz et al, 2017).
- Target throw test. (Yutronic-Gálvez, 2012).

The relevance of the strategy developed was evaluated based on the criteria issued by the specialists consulted, which were processed through the Delphi method.

To determine the functionality of the strategy, a pre-experiment was carried out with a group of 60 eighth-year students from the “Remigio Crespo Toral” Educational Unit with the application of the pre-test and the post-test.

For the processing of the results obtained, descriptive statistics were used from the central tendency and dispersion statistics such as the mean, mode, average, standard deviation, variance, minimum and maximum, and others. Likewise, inferential statistics are used with the use of hypothesis tests to define the normality of the data with the Kolmogorov-Smirnov test and from the result the student's T hypothesis test is applied. The statistical analyzes described above are applied with the Statistical Package for the Social Sciences, SPSS version 25.0.

For the analysis of the data obtained from the consultation of different sources of information, as well as of the applied research methods and techniques, triangulation was used as a methodological procedure in which the results obtained were contrasted to fulfill the objective of this investigation. from which a didactic-motor strategy was developed to improve segmental dynamic coordination in eighth-year students of the “Remigio Crespo Toral” Educational Unit structured in stages and phases which are described below.

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In stage 1 or Diagnosis, an anticipated and systematic analysis of the current and potential state of the students is carried out, which directly and indirectly affects the results that are desired to be achieved in relation to the preparation and performance of the teachers and the development of coordination. segmental dynamics in the eighth-grade students of the “Remigio Crespo Toral” Educational Unit.

For its concretion, four phases are taken into account in which they cover the diagnostic process from its design to the evaluation of the instruments applied to determine the current state of the level of preparation and performance of the teachers, as well as the level of development of the segmental dynamic coordination in the eighth-grade students of the “Remigio Crespo Toral” Educational Unit.

In Stage 2 or planning of the didactic-motor strategy the objectives, defined from the systematization and diagnosis of the current state of the students, have a methodological function, these constitute an aspiration that is achieved with the proposed strategy and that supposes a certain transformation in the students.

This stage is made up of three phases in which the preparation of the teachers, the playful activities and the methodological guidelines necessary for the implementation of the didactic-motor strategy with a playful approach to improve the dynamic segmental coordination in the students of high school are planned. eighth year of the “Remigio Crespo Toral” Educational Unit.

Stage 3 or implementation its function is to socialize the didactic-motor strategy with a playful focus on teachers and students, in addition to specifying in practice the playful activities developed to improve segmental dynamic coordination in eighth-year students of the “Remigio Crespo Toral” Educational Unit.

This stage comprises 3 phases that encompass the process of awareness, motivation, preparation and implementation of the didactic-motor strategy with a playful approach designed for the development of segmental dynamic coordination in eighth-year students of the “Remigio Crespo Toral” Educational Unit.

The objective of the evaluation stage is the formative functions of control and continuous verification of the process, it is the function of this stage, which makes it possible to enrich and perfect the didactic-motor strategy with a playful approach for the development of segmental dynamic coordination in the eighth-year students of the “Remigio Crespo Toral” Educational Unit.

RESULTS

The results of the instruments applied before the application of the proposal showed theoretical-methodological limitations related to the planning, execution, control and evaluation of the development of segmental dynamic coordination in eighth-grade students of the “Remigio Crespo Toral” Educational Unit.

These limitations allow us to corroborate the need to support a didactic-motor strategy with a playful approach to improve segmental dynamic coordination, specifically visual, oculo-manual and oculo-pedal perception in eighth-year students of the “Remigio Crespo Toral” Educational Unit. that favors the improvement of coordination capacities and the increase in the preparation of students and teachers.

After applying the proposal, it showed an advance in the development process of dynamic segmental coordination in the students, which is systemic, systematic and is valued as very adequate, taking into account the training developed and the methodological orientations provided in the strategy for the adequate development of the coordinative capacity that favored the preparation of the professors to achieve the proposed objective.

A favorable increase in the level of planning of Physical Education is observed, by eliminating difficulties in the formulation of objectives, the selection of methods and content, this allows a systematic and systemic process reaching superior results in the use of the forms of organization, procedures and means fundamentally in games, which are evidenced in the development of segmental dynamic coordination capacity in eighth-year students of the “Remigio Crespo Toral” Educational Unit.

In summary, it can be seen that the implementation of the Didactic-Motor Strategy with a playful approach favors the development of segmental dynamic coordination

in eighth-year students at the “Remigio Crespo Toral” Educational Unit based on a systemic and systematic teaching-learning process.

DISCUSSION

As a novel element of the research, the innovative proposal of a didactic-motor strategy with a playful approach that makes it possible to specify in the curricular dimension of a physical-educational intervention that improves the segmental coordination capacity of the eighth-year students of the Unit can be pointed out. Educational Remigio Crespo Toral.

In the studies carried out by Copado (2019) and Blume, segmental coordination is defined, appreciating that the coordination capacity has the particularity of being a process of regulation and organization of the moving with a high influence of sensory-motor aspects, therefore, they are susceptible to be perfected.

Another element that was taken into account was the classification of physical capacities provided by Ruiz (2012) from which the coordinative capacities were assumed to constitute the focus of the research, as well as the principles that govern the process of developing capacities. which allow adequate planning of the actions proposed in the strategy.

In addition to this same author, the definitions of sports and pre-sport games are assumed, which are used to fulfill the objective of the research by constituting the way to improve segmental dynamic coordination in eighth-year students of the “Remigio Crespo Toral” Educational Unit. .

After the investigation was completed, it was possible to conclude that the study of the main theoretical and methodological foundations for the development of the dynamic segmental coordination capacity allowed the theoretical and methodological conception of the proposed Didactic - Motor Strategy with a ludic approach.

The diagnosis of the development of the segmental dynamic coordination of the eighth-grade students of the “Remigio Crespo Toral” Educational Unit revealed insufficiencies in the preparation of the teachers and students related to the playful approach for the development of the segmental dynamic coordination; as well as

insufficiency in the methodological treatment of coordination capacities, which prevent the development of segmental dynamic coordination of these students.

The didactic-motor strategy with a playful approach proposed for the development of segmental dynamic coordination of eighth-year students of the “Remigio Crespo Toral” Educational Unit is structured by stages, phases and actions. These lead to the implementation by the teachers of the didactic-motor strategy with a playful approach elaborated.

The expert criterion is applied to the didactic-motor strategy with a playful approach, confirming its relevance, by declaring a high level of consensus, which allows its implementation in practice.

The results obtained in the evaluation of the effectiveness of the Didactic-Motor Strategy with a playful approach during the practical implementation of the system demonstrate its functionality in the development of segmental dynamic coordination of the eighth-year students of the “Remigio Crespo Toral” Educational Unit.

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